"BE"ing a Certain Way: Seeking *Body Image* in Canadian Health and Physical Education Curriculum Policies

Lorayne Robertson *University of Ontario Institute of Technology*

Dianne Thomson

University of Ontario Institute of Technology

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Abstract

Body image is an individual's emotional response to one's appearance including size and shape; this response may not be helpful in the pursuit of overall health and well-being. This policy analysis examines the treatment of body image in Canadian Health and Physical Education (HPE) curriculum policies using a body image analysis framework developed by the authors and based on health sciences research. The analysis indicates that most Canadian educational jurisdictions minimally address the topic of body image while some jurisdictions view it as important. As a result, curriculum policy responses to this important issue are scattered and inconsistent.

Keywords: Body image, health, policy analysis, knowledge mobilization, curriculum coherence, health and physical education curriculum.

Résumé

L'image corporelle est la réaction émotionnelle d'un individu à son apparence, y compris sa taille et sa forme, une réaction qui n'est peut-être pas favorable à la poursuite de la santé et du bien-être. Cette analyse porte sur le traitement de l'image corporelle dans le domaine de la santé et des politiques de programmes d'éducation physique (HPE); en utilisant un cadre d'analyse de l'image corporelle développé par les auteurs et basé sur la recherche en sciences de la santé. L'analyse indique que la plupart des juridictions canadiennes en éducation sont peu enclines à aborder le sujet de l'image corporelle tandis que certaines juridictions considèrent le sujet important. Par conséquent, les réponses des politiques de programmes d'études à cette question importante sont dispersées et contradictoires.

Mot-clés : L'image corporelle, la santé, l'analyse, la mobilisation des connaissances, la cohérence des programmes d'études, les programmes en éducation physique et santé.

"BE"ing a Certain Way: Seeking *Body Image* in Canadian Health and Physical Education Curriculum Policies

Introduction

The term body image is defined as "a person's perceptions, thoughts and feelings about his or her body" (Grogan, 2008, p.3). A person's response to his or her body image may or may not be helpful in the pursuit of overall health and well-being. For example, having a poor body image is linked with having low self-esteem, depression, and eating disorders (Hutchinson & Calland, 2011). Body dissatisfaction can also lead to the use of steroids to increase muscularity or contribute to a decision not to participate in activity (Grogan, 2008; Rice, 2007). On the other hand, having a positive body image supports healthy eating and participation in activities with more comfort (Grogan, 2008). Body dissatisfaction affects many children and adolescents; it is sufficiently prevalent to be reported as normative for girls in mid-childhood (Hutchinson & Calland, 2011) and for both boys and girls in the pre-teen years (Grogan, 2008). Research into peer influences on body image indicates that body dissatisfaction emerges "considerably earlier" than was once thought (Dohnt & Tiggeman, 2005). For these reasons, how body image is represented in curriculum policy documents and where it is presented in the K-Grade 8 continuum are significant issues. Little is known about how body image is represented across the health and physical education (HPE) curricula of Canada's provinces and territories. purpose of this research is to determine how consistently and coherently the concept of body image is addressed in the Canadian HPE curriculum policies, including a determination of the type and frequency of body image messages that are present, and at which grades. Because body image has been linked to both physical and mental health, it is worthwhile to develop a sense of how it is currently addressed in policy.

Context

Children and adolescents offer indications that their self-esteem and self-image—and also how they view others—is related to body shape and size (Birbeck & Drummond, 2006; Cafri, van den Berg, & Thompson, 2006; Clay, Vignoles & Dittmar, 2005; Smolak, 2004). They are taking measures to control their body shape and size; some of these measures are impacting their health in ways that concern both the health sciences and education research communities. For example, research from the Hospital for Sick Children in Canada indicates a concern over the numbers of girls aged 10-14 who are dieting and at risk for eating disorders (McVey, Tweed,& Blackmore, 2004a). A British eating disorders society reports rising cases of anorexia in girls between the ages of 8 and 11 (Hutchinson & Calland, 2011). Similarly, the pursuit of muscularity in the US has led to the use of illicit steroids as a public health concern (Cafri et al, 2006). How health is defined in the curriculum becomes a significant consideration. definitions of good health focus on being a certain size, and regulating lifestyle choices (e.g., calories in and out) then students can see body size and shape as needing work and remediation. If a curriculum policy supports the view that size and shape are determined by heredity and persons can be healthy at many different sizes, then health is presented in a more complex way. School curriculum is not neutral but is constructed on decisions that have been influenced by different ideologies and assumptions (Kincheloe, 2004). The overall assumptions about health in a HPE curriculum policy are significant factors to consider when analyzing it for body image messages.

In an earlier era, four interdependent fields were deemed responsible for health: the environment, biology/genetics, lifestyle, and health care (LaLonde,1974). In the ensuing years, however, the areas over which the individual has some control—lifestyle, and in particular, diet and exercise—are increasingly named as health influences. Today, the published indicators of Canadians' well-being are: smoking, obesity, physical activity, access to a physician, and patient satisfaction (Human Resources and Skills Development Canada, 2012). This marks a shift in the assigning of responsibility for health from multiple, interdependent factors to mainly lifestyle choices over which individuals are deemed to have control. Hershfield (2000) has deemed this the "lifestyle revolution" (p.1) in terms of how health has come to be perceived.

A focus on lifestyle activities as the key influences on health sidelines genetics and the environment as factors, and reinforces a mediated reality that individual choice largely determines health. A lifestyle focus also equates healthy life with a healthy weight (Basrur, 2004). A similar narrowing of focus to lifestyle and responsibility has been documented in British policy (Evans, Rich,& Holroyd, 2004). This focus on weight and shape has two consequences: first, certain sizes, shapes, and weights become preferred and privileged; and second, health is not seen as a condition determined by multiple complex factors, but one determined by weight and activity levels that require monitoring to prevent a health crisis such as an obesity epidemic (Basrur, 2004). Recent studies have indicated that a major concern is that Canadian children are inactive, with one study indicating that less than 10% of Canadian children and youth are meeting the activity standard of 60 minutes per day of moderate-to-vigorous physical activity (Statistics Canada, 2011).

Gard (2004) finds that the current terminology of an *obesity crisis* is "at least controversial and probably mistaken" (p.69) and is concerned with how children relate to their bodies when the dominant discourse is one of epidemic and the need to self-monitor. The National Eating Disorder Information Centre (NEDIC) states, "There has never been more misinformation about food and weight" (2002, p. 27) and questions the current culture that promotes the notion that bodies can be manipulated and transformed into preferred sizes and shapes. NEDIC also sees an unfortunate marriage between the thinness of the ideal body in the media and a consumer-driven culture in which advertising, entertainment, and diet industries compete for attention and dollars.

In Western societies, children and adolescents exist within a social space that is replete with discourse about bodies, weight, shape, diet, exercise, and the personal responsibility to be a certain size and to look a certain way (Grogan, 2008; Hutchinson & Calland, 2011; Smolak, 2004). Advertisements for products almost always include images of women who are thin and men who are muscular (Hutchinson & Calland, 2011). Children's unhealthy responses to these multiple messages have raised significant concerns among researchers in the fields of health sciences and education (McVey et al., 2004a; Smolak, 2004). Not only are some children in elementary school unhappy with their own bodies, they show considerable negative stereotyping of overweight individuals starting in early elementary school (NEDIC, 2002). There is a growing body of literature indicating that the physical, social, and emotional well-being of children and adolescents has been compromised to a significant degree by a culture that promotes ideal body types (Grogan, 2008; Kehler & Atkinson, 2010; Smolak & Thompson, 2009).

Body Image

Canadian youth live in a media-rich society in which there are strong cultural and social messages that one's acceptance is related to one's appearance. Media present an unnatural

model of muscularity or thinness that is attainable by less than 5% of the population (Hutchinson & Calland, 2011). Students who are of average weight are undertaking calorie restriction and other means of size control to conform to a body type that is, in reality, an unnatural ideal (McVey et al., 2004a). Society appears to be intolerant of a range of naturally diverse sizes and shapes. According to Grogan (2008), "People who do not conform to the slender ideal face prejudice thoughout their life span" (p.10). Body dissatisfaction has an impact on the physical, social, and emotional health of children (Dohnt & Tiggeman, 2005; Evans et al., 2004; Smolak & Thompson, 2009). It is now considered normative for females of all ages to be unhappy with their bodies (Kater, Rohwer, & Londre, 2002; Kostanski, Fisher, & Guillon, 2004) and anxiety about body shape has become an expected response to both girls' and boys' transitions through puberty.

In one Canadian study, a third of the ten-year-old girls of normal weight indicated that they were afraid of being fat, and this became the majority fear at 14 years of age (McVey, Tweed,& Blackmore, 2004a). This finding, if representative, indicates that a significant number of school-aged children of normal physical size are not experiencing optimal social-emotional health. This mediated fear of size and shape has not only social and emotional implications such as depression, anxiety, and impaired school performance (Newmark-Sztainer, 1996), but also multiple physical health implications because girls and boys are restricting nutrition while their bodies are still developing. Kater, Rowther, and Londre (2002) note that this fear of gaining weight is "normative but not benign" (p.199) as it opens the door to many other health risks. Body-based dissatisfaction for girls is tied to opinions about weight that are more predictive of child and adolescent dieting behaviours than their actual weight (Phelps, Sapia, Nathanson,& Nelson, 2000).

Body-based dissatisfaction is a significant issue for boys as well (Cafri et al. 2005; Drummond, 2003; Humphreys & Paxton, 2004; Kostanski, Fisher, & Guillone, 2004; McCreary & Sasse, 2000; Pope, Phillips, & Olivardia, 2000; Ridgeway & Tylka, 2005; Stout & Frame, 2004; Wild, Fischer, Bhana, & Lombard, 2004). In adolescence, boys' body-based dissatisfaction leads them to undertake unhealthy practices to maintain an unrealistic ideal size (Pope et al., 2000) and appears to be connected to constructs of masculinity; boys feel the impact of both the social pressure to be thin and the social pressure to be muscular. Stout and Frame (2004) caution, "Boys learn early on that their identities are closely tied with the physical characteristics that they see in body builders and athletes" (p. 180). They explain the dangers inherent in this pursuit:

What many adolescents do not realize is that most of the male bodies that they idealize can be acquired only with the use of anabolic steroids. Thus many adolescent boys find themselves pursuing a body type that is impossible to obtain. By the time these boys reach adulthood, many have developed an eating disorder, such as bulimia, or an image disorder such as muscle dysmorphia. (p. 176)

For both boys and girls, body-based dissatisfaction and its resultant lowered self-esteem is associated with a number of high-risk activities such as risky sexual conduct, substance abuse, and suicide, indicating that health risks for adolescents have become more strongly related to behaviours that could be prevented rather than to diseases (Wild et al., 2004). With significant concerns for body image impacting so many children and adolescents, one Canadian researcher has cautioned that "the need for effective primary prevention is critical" (McVey, Tweed,& Blackmore, 2004b, p. 277) and this need is echoed by others in the field of health sciences (Kater

et al., 2002; Levine & Smolak, 2001; Phelps et al., 2000; Wild et al., 2004) and in education (Kehler & Atkinson, 2010).

Research on the results of body image intervention efforts is not clear because of multiple factors such as a shortage of longitudinal studies, small sample sizes, and multiple variables such as teacher implementation (Holt & Ricciardelli, 2008). Researchers have, however, identified some elements that should be considered in universal intervention programs such as elementary curriculum policies. Holt and Ricciardelli (2008) see some potential in integrating the body image program content into other areas of the school curriculum for "continuous reinforcement of attitude and behaviour changes regarding weight and muscle concerns" (p.241). Smolak (2004) suggests that: a) universal programs begin in the early years of schooling when young children have not yet integrated beliefs about appearance (Smolak & Levine, 2001, as cited in Smolak, 2004); b) programs begin before the media and parental influences have been shown to affect body image; and c) early approaches would address arguments that prejudice against fat increase as we age (p. 20). Other researchers have suggested that there are four weight-related issues that could be addressed within a school-based intervention: healthy eating, physical activity, weight-related teasing, and body dissatisfaction (Haines, Neumark-Sztainer, & Thiel, 2007).

One model that has been proposed to promote a healthy body image in children is a comprehensive ecological model that includes consideration of student learning outcomes, community factors, interpersonal factors, and institutional factors (Evans, Roy, Geiger, Werner, & Burnett, 2008). This model, which is linked to the National Health Education Standards in the United Kingdom, advocates for a curriculum that promotes acceptance of a wide variety of body sizes, shapes, and weights, and also links it to other areas of diversity. This curriculum promotes healthy lifestyles, but encourages a critical stance toward the thin media ideal. It encourages discussion about male muscularity, boys, and body image. There is an emphasis on being "fit" instead of "thin" (Evans et al., 2008).

In summary, the literature indicates that a more comprehensive health prevention program that includes body image has the potential to provide elementary school girls and boys with support and guidance to understand and accept body-based differences. It can assist students in acquiring healthy and realistic attitudes toward their own body image before adolescence and during adolescence. It may also help children see how they are being socialized to compare themselves to others and to judge others because of their size. Presently, public advertising undresses women and girls, and increasingly men, in public, which increases pressure on students who were not given these attributes as a genetic endowment. Students need to learn skills of resilience to respond to teasing, bullying, body-based harassment, and other societal pressures to look a certain way. The research suggests that what the authors call a bodypositive health curriculum would support the building of healthy attitudes about students' own bodies and acceptance of other bodies in order to resist the pressure to attain an unrealistic ideal. Both girls and boys need critical framing (New London Group, 1996) to name and analyze advertising that treats bodies and body-parts as commodities, and also presents a size that is unattainable for the majority of the population (Hutchison & Calland, 2011). There is a need for education policy responses to these growing concerns about body image for children and adolescents.

Policy Analysis

In Canada, school curriculum policies to support health are not federally designed, but are the responsibility of each province and territory. Little is known about the collective or

comparative nature of the key messages from each provincial and territorial HPE curriculum document relative to body image, body shape, body size, and self-esteem in spite of concerns that have been raised in health sciences research. Little has been written about the areas of coherence and/or contradiction about body image messages in Canadian education policies. Research is needed to shed light on the underlying assumptions and values that underpin provincial and territorial health curriculum content. This study is intended to begin to address this gap.

This research is underpinned by several understandings. One of these is critical pedagogy; that is, the recognition that schools and school curricula are political in nature and what is taught is shaped by invisible forces that, though they may be invisible, are oppressive in nature while operating under the guise of democracy (Kincheloe, 2004). Children's body dissatisfaction has been linked to powerful societal forces that portray a mediated reality that muscular and thin bodies represent "happiness, success, youthfulness, and social acceptability" (Grogan, 2008, p. 9). Education can:

- help students understand that this ideal body type occurs naturally only in a very small percentage of the population;
- help students understand that health includes physical, social, and emotional health and how best to work toward this balance; and
- help students understand that they can be healthy at a broader range of sizes and body types than those portrayed in the media.

A critical pedagogy approach is one way to examine how society works in sometimes hidden ways to construct identities (Kincheloe, 2004).

A second framework is one of knowledge mobilization, which has been defined by Levin (2008) as an effort to get the information "to the right people, in the right format, so as to influence decision-making" (p.12). The earlier-cited example of the proposed ecological framework in Britain (Evans et al., 2008) is an example of efforts to mobilize information from research to influence policy change. While societal forces can offer models that limit students' potential, society's efforts can be mobilized to prompt behaviour change. A Canadian example of a knowledge mobilization effort from the field of health sciences research to the general public is the "Healthy Active Kids Report Card" (Colley, Brownrigg, & Tremblay, 2012). The report card is produced annually in a shortened version and a more detailed version that includes references from research. This publicly available material also includes presentation slides and other materials to promote physical activity.

A third framework that is geared toward positive change and that has influenced the development of this study is that of policy analysis. Collins (2005) defines policy analysis as "a generic name for a range of techniques and tools to study the characteristics of established policies, how the policies came to be and what their consequences are" (p. 192), as well as recognizing that health policy analysis is not always a rational process. In the research outlined here, the authors have attempted to define the context and the problem for body image in Canadian curriculum policies, and search for evidence of the type of discourse in the policies that supports a positive body image. It is hoped that this analysis of current Canadian HPE curriculum policies can be used to raise awareness with respect to body image issues. Stevens and Bean (2007) remind us that, "policies...are ideological in nature, contextualized in terms of political, historical, and economic dimensions, and subject to analysis, critique and deconstruction" (p. xv). In this policy analysis, an attempt has been made to locate body image

in Canadian curriculum policy documents and identify the dominant curriculum voices in order to inform future curriculum policy development.

This research was guided by the following questions based on these understandings:

- 1. What are the dominant discourses surrounding body image in Canadian HPE curriculum policies?
- 2. Is there evidence of knowledge mobilization from the field of health sciences to the curriculum policies or from province to province?
- 3. Where is body image located in the HPE curriculum policies of the provinces and territories? Is there a coherent approach?

Methodology

Body Image Analysis Framework

Body image is a mental image (Hutchinson & Calland, 2011) or picture (Grogan, 2008) related to an individual's perceptions of his or her own physical size, shape, and appearance; this emotional response may be positive or negative, and helpful or harmful in the pursuit of overall health and well-being (Hutchinson & Calland, 2011). A HPE curriculum that focuses on simplistic health messages such as balancing *calories in and energy out* misses an opportunity to address the complexity of factors that contribute to health such as the environment, heredity, and access to services, and instead puts a focus on lifestyle choices. A curriculum that does not include messages about heredity and genetics, for example, misses an opportunity to help students learn the kind of critical thinking skills needed to resist the pressures for unnatural thinness or muscularity that are promoted by media, as well as the fitness and diet industries. In a curriculum that considers complexity, the message will not focus solely on personal responsibility but instead will help children and adolescents understand that two persons can undertake the same food and fitness regimen and will not be the same size. A similarly complex message is that people of many different sizes and shapes can be healthy even though their bodies may not conform to standardized body measurement tables.

The Canadian HPE policies were also analyzed to determine if they help students address the stigma and prejudice associated with size, and whether or not the policies help students understand that body-based stereotypes can privilege some persons (for example, those who have athletic bodies are more likely to be selected by their peers to play on teams) while marginalizing others. In summary, the research described here was designed to examine whether or not body image in all its complexity was evident in Canadian HPE policies.

Working from the review of the literature on body image, the authors identified key concepts from the health sciences and education communities that were important considerations in body-positive curriculum messages. Next, the authors organized these key body-positive concepts into a framework (see Table 1 below), which was employed to analyze the HPE curriculum policies for each province and territory. The first category of the Body Image Analysis Framework is a general category, while the other four are specific categories.

All digitally accessible HPE curriculum policies for elementary students (both dedicated and integrated documents) from each province and territory were accessed and catalogued (Appendix A). Each province and territory's curriculum was then examined for its level of emphasis in the five key areas of the body image policy analysis framework.

Table 1.

A body image analysis framework.

A Body Image Analysis Framework f	For Canadian HPE Curriculum Policies Complex
•	Orientation Complex
 Health is related to body size. Healthy weight means healthy life. Self-esteem is linked to body size. "Calories in/Calories out" approach to health. 	 People can be healthy at different sizes. Multiple factors determine a healthy life. Many attributes contribute to self-esteem. Health includes physical, social and emotional health.
•	Orientations
 Individual /Moralistic - Health is a personal responsibility. Lifestyle determines your size. There are good and bad foods. Monitor weight through BMI and standards. 	 There are multiple determinants of health. Genetics, environment and lifestyle affect size. Foods meet many different needs. A range of sizes and shapes can be healthy.
	Image
 Body image is an issue for a small percentage of adolescent girls. Perfection and performance codes should be introduced and monitored in schools. Self-esteem is determined by looks. Certain sizes and shapes are preferable. 	 Body image is an issue for all ages and genders. The preferred shapes are unattainable and unnatural for the general population. Many factors impact self-esteem. A natural diversity of size and shape occurs in the general population.
Critical Stand	ce
 A simplistic stance focuses on how someone differs from the norm. Difference needs to be remediated, corrected. Focus on continuous body improvement, prevention and avoidance of risk. Perfection is a goal. Obesity is a social problem with an individual solution. The body is imperfect, unfinished and threatened and needs to be changed. Messages "tell" a compliant public. 	 Weight-based stigma and stereotypes are forms of prejudice that limit potential and can result in exclusion and bullying. Diet and exercise industries stand to gain from rigid perfection codes, exaggerated health scares, and body-based dissatisfaction. Social pressure to be a certain size can be resisted through deconstruction, awareness, and empowerment. Body literacy, physical literacy, and critical health literacy support empowerment
Focus or	n Weight
 Students should maintain a healthy weight. Fad diets are wrong. Students should chart calories in and out. Teachers should monitor BMI; being thin and in shape is most important. Only adolescent girls have eating disorders. 	 Students should maintain a healthy body. Restricted eating or diets are harmful. Listen to body cues and satiety cues. Maintain a healthy lifestyle in all areas: physical, social-emotional, intellectual. All ages and both genders are impacted by weight and eating preoccupation.

Excluded from the study were any curriculum materials that were not available online and curriculum exemplars. The keywords were highlighted in each of the curriculum policy documents. Working individually, the research team members examined each curriculum policy, identifying the context within which the keywords were used and detailing the specific terms and phrases that indicated the intent of the policy. Next, again using a blind review process, each curriculum policy was analyzed using the Body Image Analysis Framework. Following the blind review, the research team met, compared analyses, and discussed their findings. A detailed descriptive summary was completed that included all of the provinces and territories.

Findings

These findings are presented in an ordering of the provincial curriculum documents from those that address body image to a significant degree, to those that have some body image outcomes, and finally the provinces where body image does not yet appear. Some educational jurisdictions have a dedicated Health curriculum, while others have a combined HPE curriculum document. The following rating has been applied on a scale from zero to four:

- $\sqrt{\sqrt{1}}$ body image curriculum coherence;
- $\sqrt{1}$ evidence of awareness of the body image issue;
- $\sqrt{\sqrt{}}$ emergent awareness of the body image issue with scattered body image outcomes; and
- $\sqrt{}$ little or no evidence of awareness of body image issues.

Coherence refers to the fact that the province or territory has attempted to address this issue in a systematic way across the grades and in a way that is coherent with messages as they are understood from the field of Health Sciences.

Table 2. HPE curriculum documents' treatment of body image by province.

Province /Rating	Location of body image in the curriculum policy document	How body image is addressed in the curriculum policy document
1) Alberta	Addressed in both P.E. and Health curriculum and across all grades.	Approach in PE curriculum is body image related to activities certain bodies can do. In Health curriculum, there is a focus on self-efficacy and the complexity of approaching body image issues.
2) Prince Edward Island	Addressed across all of the elementary grades in the Health curriculum.	Consistent message about the need to recognize the natural diversity of body shape, and health at every size. Addresses the complexity of the issue and continuous focus on building resilience factors. Includes parent and teacher resources. (Alberta
3) Ontario ☑☑☑	Body image is mentioned in Gr.5, 6 and 7. Eating disorders in Gr. 8.	cited.) Overall focus on maintaining healthy eating habits and personal choice, balancing activity and nutritional choices.
4) British Columbia ☑☑	In the curriculum Health and Careers, body image is discussed with respect to puberty (Gr. 5) and media (Gr. 7 & 8).	Body image is approached only in higher grades and the focus is attached to problems of body image rather than protective factors.
5) Yukon ☑☑	Uses British Columbia curriculum.	
6) New Brunswick ☑☑	Body image is mentioned in K-2 integrated curriculum and at Gr. 4 & 5. There is a body image focus at Gr. 6-8 Health.	Body images messages in 6-8 Health are designed to build resilience to pressure to conform to an ideal body type, but there appears to be a disconnect with the focus of the P.E. documents for the same grades.
7) Saskatchewan ☑☑	Body image is mentioned in early grades but developed in Gr. 6 and 8 Health curriculum policies with multiple learning outcomes called "understandings, skills and confidences."	Somewhat challenging to find a common focus in the 1-5 curriculum because of its digital format on the web, but the Gr. 6 and Gr. 8 Health curriculum deals with body image with some depth and complexity.
8) Nova Scotia ☑	Body image is addressed in the outcomes framework for Gr. 6, 7 and 8.	Body image is related to media messages and industry's impact, as well as "aesthetic and ability factors" that can affect participation in physical activity.
9) Newfoundland and Labrador ☑	Body image and self-concept are addressed in some grades.	The approach is more scattered than coherent and more simple than complex.
10) Northwest Territories	Body image is mentioned once in Gr. 7, 8, 9 teacher resources.	Body image is linked to discussions about obesity.
11) Nunavut	Uses curriculum of the Northwest Territories.	
12) Quebec	Body image is mentioned in the introduction to the Personal Development curriculum Ch. 9.	Overall there is an emphasis on charting food intake and physical activity rather than body image.
13) Manitoba	Two learning outcomes in the Gr. 8 HPE curriculum mention body image.	Precise curriculum message with respect to body image is not evident.

Dominant Discourses

This policy analysis was undertaken to determine the dominant discourses in the HPE curriculum documents across Canada with respect to body image at the present time. First, the research sought to determine if the dominant discourse was one of multiple health determinants or if it was focused mostly on lifestyle as the determinant. It was found that the dominant discourses focus on personal responsibility (lifestyle). Most of the provinces focus on individual choice and decision-making as the determinants of health. The exception here is the curriculum for PEI where the causal factors for health appear to follow those articulated in the comprehensive federal reports (Health Canada,1999a; 1999b); this more comprehensive approach is also seen in the Alberta Health curriculum. Both provinces articulate views of health that are closer to the World Health Organization (1998) definition: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p.39). Four other provinces—British Columbia, Saskatchewan, Ontario, and Quebec—have a mixed approach of multiple determinants plus a lifestyle focus. Five of the provinces were deemed to have a more focused, lifestyle (personal responsibility) approach to health.

In a similar way, the body image messages across provinces are generally lacking in complexity. While *some* provinces articulate that size and shape occur naturally in diversity, most do not. In the two provinces that address complexity (P.E.I. and Alberta), students are helped to understand that body shape and size are determined by heredity as well as lifestyle choices. Students are also encouraged to expect other students to model a wide range of sizes and shapes. Along with the body-positive messages from these two provinces, students learn to deconstruct society's messages of preference for body shapes that do not occur naturally in most of the population. The food messages are also complex, and food is seen to fulfill a variety of roles beyond a source of calories. Generally, there is a need across most of the other provinces to help students understand that their size, shape, food preferences, and physical activity preferences are unique and should be respected. When the curriculum policy undertakes to pressure students to conform to certain sizes and shapes, it raises the question of whether the curriculum policy message is too focused for a diverse population.

With respect to coherence, there was little coherence evident across Canada for addressing body image or a body-positive curriculum. Only two provincial curriculum policies demonstrated coherence within their own curriculum policies (i.e., consistently across grades or across subjects). In addition, different curriculum policies approach the topic and discuss it with varying degrees of emphasis. Some provinces such as P.E.I. and Alberta address this topic in a significant way while other provinces are mostly silent on the topic. However, there is very little indication in any curriculum policy that boys are at risk for body image concerns. This is a troublesome finding, and one that needs further examination. Not only are the messages across provinces inconsistent, there is also a lack of response in the curriculum to the messages from the field of health sciences. Multiple researchers have identified a need for body image early intervention and prevention in order to build resilience factors that help children to resist the pressure to be a certain size (e.g., McVey et al., 2004; Smolak, 2004). While other curriculum policies focus on character traits such as respect and self-esteem, there is a need to also focus on resilience factors in order to counter media and societal pressure to be a certain way. The response of provincial and territorial education policies to this concern is fragmented at best.

Finally, there appears to be little evidence of knowledge mobilization from the field of health sciences regarding cautions around regulating and monitoring students' size, fitness, and food intake. For example, some provinces advocate monitoring students' BMI and food journals, as well as conducting fitness testing, while others do not. In addition, although there

are cautions against the teaching of eating disorders to the general rather than the identified highrisk populations (Levine & Smolak, 2001; Mann et al., 1997), several provincial educational jurisdictions continue to advocate teaching about eating disorders to the general population. Overall, the research indicates a gap in time between the field of health sciences and curriculum policy developers with respect to understanding concepts related to building body-positive curriculum outcomes; this gap indicates that Canadian HPE curriculum policy development would profit from increased efforts to mobilize knowledge.

Discussion: Knowledge Mobilization and Coherence

A key finding of this study is that a body of research on body image from the field of health sciences is not found with any coherence across the Canadian HPE curriculum policies. Levin (2008) reminds us that the process of mobilizing knowledge from research to practice is socially constructed, takes time, and is mediated through various processes, both social and political. According to Levin, the purpose of knowledge mobilization is to "increase the role of research evidence in shaping policy and practice, recognizing the reality of the many other, often more powerful, forces that are also in play" (2008,p. 25). It is important to seek bodies of consistent evidence over time and to pay attention to the accumulation of the weight of that evidence over time. Mobilization of knowledge can change both policies and practices, but according to Levin, "It is actually easier to affect large policy decisions than to change practices across complex institutions" (2008, p.9). The current affordances that digital technologies provide present an opportunity for coherence around key body-positive messages that has not yet been realized. There is an accumulation of evidence that Canadian children and adolescents are undertaking disordered eating patterns and seeking over-muscularity while losing touch with simple hunger and satiety cues. They are regulating their lifestyle choices to conform to an ideal body type that does not occur naturally in the population. This presents a pressing need for knowledge mobilization: both from health sciences research to education, and also across education sectors in order to build coherent messages for child and adolescent health in policy and in practice.

The current assigning of curriculum policy development to the provinces and territories in Canada acknowledges the nation's diversity, but there are other mechanisms in place for coherence. The Council of Ministers of Education, Canada (CMEC)—which was established in 1967 by the ministers of education for the provinces and territories—provides a forum for discussing matters of mutual interest (CMEC, 2007). For example, CMEC efforts to date have addressed education goals and technology, the teaching of science, and student achievement. Another organization that has some potential to bring coherence to this issue is the Pan-Canadian Joint Consortium for School Health, which does not, at present, encompass body image issues but could in the future consider, for example, the ecological model that has been proposed in Britain by a consortium of medical and education researchers (Evans et al., 2008).

Building a national voice in support of a body-positive curriculum appears to be overdue. There are multiple areas of incoherence in the pan-Canadian HPE curriculum messages. First of all, there is little agreement on the level of emphasis on lifestyle factors relative to the other health determinants such as access to affordable activities and spaces. There are different messages about food and weight across Canadian education curriculum policies. In some curriculum policies, food is taught only in its relation to weight gain or loss, while in others, food has multiple considerations and purposes. In addition, there is no evidence of consensus on the emphasis that should be given to body image curriculum elements, or even with respect to the

inclusion of body image in the curriculum. In summary, there is a lack of coherence around this issue, which is arguably one of significant importance.

A coherent curriculum is one that is relevant, has a sense of unity, has a sense of compelling purpose, and is linked in implied and explicit ways toward its purpose (Beane, 1995). The current study's findings indicate that there is a significant degree of incoherence on body-image messages in pan-Canadian curriculum policies that appears largely due to the need for conversations about body image issues for both boys and girls, as well as messages about health determinants. There is a need to share understandings and reach consensus on key messages about fitness, diet, and lifestyle choices and how they relate to Canadians' overall health and well-being.

Neumark-Sztainer (2005) has argued that it is challenging to bring the fields of obesity research and body image research together. For example, the low incidence of eating disorders can be sidelined because it is compared with the importance of the higher incidence of obesity. Similarly, obesity concerns can be sidelined by a focus on health at every size, or challenges to BMI as a measurement. Neumark-Sztainer argues that one challenge to bridging these two research fields together is that there are insufficient opportunities for discussion. We suggest that these conversations need to occur within the context of honouring the nation's diversity but,primarily, these conversations are needed in the interest of children. As Fullan states, "Coherence is an essential component of complexity" (2002, p.18). Leadership, knowledge mobilization, and dialogue are needed to support the alignment of HPE curriculum policies toward a vision of health and body image that is realistic in its complexity while supporting the overall health of Canadian children and adolescents.

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Appendix A
Online Provincial Health Curriculum Policy Documents (Canada)

Link	Document Name	Format
British Columbia/Yukon Territory www.bced.gov.bc.ca/irp/pdfs/health_ca reer_education/2006hcek7.pdf	Health and Career Education K to 7: Integrated Resource Package, 2006	PDF
www.bced.gov.bc.ca/irp/pdfs/health_ca reer_education/2005hce_89.pdf	Health and Career Education 8 and 9: Integrated Resource Package, 2005	PDF
http://www.bced.gov.bc.ca/perf_stands/ healthy_living/k-3/pdfs/hlps_k- 3_quick_scale.pdf	BC Healthy Living Performance Standards. Quick Scale: K-3 Healthy Living	PDF
http://www.bced.gov.bc.ca/perf_stands/ healthy_living/4-6/pdfs/hlps_4- 6_quick_scale.pdf	BC Healthy Living Performance Standards Quick Scale: 4-6	PDF
http://www.bced.gov.bc.ca/perf_stands/ healthy_living/7-9/pdfs/hlps_7- 9_quick_scale.pdf	BC Healthy Living Performance Standards Quick Scale:7-9	PDF
http://www.bced.gov.bc.ca/perf_stands/ healthy_living/background/health_literacy.htm	New IRP Profile Health and Career Education K-7	PDF
http://www.bced.gov.bc.ca/irp/pdfs/hea lth_career_education/support_materials /hce89_irp_profile.pdf	BC Health Literacy Framework	PDF
Northwest Territories		
http://www.ece.gov.nt.ca/Divisions/kindergarten_g12/Health%20K-9%20Single%20Files/Health1.htm	K-9 NWT School Health Program, 1991 NWT Skills for Healthy Relationships, 1996 e.g., Example: Gr. 3, Growth and Development, 1991	НТТР
Alberta/(Nunavut uses these resources)		
http://education.alberta.ca/teachers/program/health/resources/k-9health.aspx	Alberta Health and Lifestyles K to 12, 2002	HTTP to PDF
Saskatchewan		
http://www.education.gov.sk.ca/health- ed-curricula	Health Education (specific grade) Curriculum 2010/2009	HTTP to PDF

M 2.1		
Manitoba	V 4 DI 1 1 DI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
http://www.edu.gov.mb.ca/k12/cur/phy	K-4 Physical Education/Health	HTTP to PDF
shlth/foundation/index.htmlhttp://www.	Education, 2001	
edu.gov.mb.ca/k12/cur/physhlth/frame	K-12(K-S4)Physical Education/Health	
work/index.html	Education: Manitoba Curriculum	
	Framework of Outcomes for Active	
	Healthy Lifestyles, 2000	
http://www.edu.gov.mb.ca/k12/cur/phy	Grades 5 to 8 Physical	
shlth/foundation/5-8/index.html	Education/Health Education, 2002	HTTP to PDF
http://www.edu.gov.mb.ca/k12/cur/phy	Grades 9 and 10 (Senior 1 and Senior 2)	HEED - SS
shlth/foundation_s1-2/index.html	Physical Education/Health Education,	HTTP to PDF
	2004	
http://www.edu.gov.mb.ca/k12/cur/phy	Manitoba Physical Education/Health	
shlth/c_overview.pdfhttp://www.edu.go	Education Curriculum Overview (N.D)	
v.mb.ca/k12/cur/physhlth/grade_7.html	Manitoba Curriculum Framework of	
	outcomes for active healthy lifestyles	
	(N.D)	HTTP
Ontonio		
Ontario http://www.edu.gov.on.ca/eng/curriculu	The Ontario Curriculum Grades 1 9.	PDF
	The Ontario Curriculum, Grades 1-8:	rDr
m/elementary/healthcurr18.pdf	Health and Physical Education, 2010	
http://www.adv.cov.on.og/org/orgin-1-	Interim version (revised) The Onterio Curriculum Grades 0 and	
http://www.edu.gov.on.ca/eng/curriculu	The Ontario Curriculum Grades 9 and	
m/secondary/health910curr.pdf	10 Health and Physical Education, 1999	
		<u> </u>
Quebec		
http://www.mels.gouv.qc.ca/DGFJ/dp/pr	Quebec Education Program: Preschool	PDF
ogramme de formation/primaire/pdf/edu	and Elementary Education: Ch. 9:	
cprg2001/educprg2001-091.pdf	Physical Education and Health, 2001	
http://www.mels.gouv.qc.ca/DGFJ/dp/pr	Quebec Education Program Secondary	
ogramme de formation/secondaire/pdf/q	School Education Cycle 1 Chapter	
ep2004/chapter91.pdf	9.1:Personal Development-Physical	
	Education and Health, 2004	
New Brunswick	. ,	
http://www.gnb.ca/0000/publications/cur	Health Education Curriculum Gr. 8,	PDF
ric/hcgr8.pdf	2005	
http://www.gnb.ca/0000/publications/cur	Health Education Curriculum Gr. 7,	
ric/hcgr7.pdf	2005	PDF
http://www.gnb.ca/0000/publications/cur	Health Education Curriculum Gr. 6,	
ric/hcgr6.pdf	2005	PDF
http://www.gnb.ca/0000/publications/cur	Health Education Curriculum K-5, 2001	
ric/healthk-5.pdf	,	PDF
http://www.gnb.ca/0000/publications/cur	Health Education Curriculum 9-10	
ric/PhysicalEducationHealthGrade9-		
10.pdf		PDF

Prince Edward Island		PDF
http://www.gov.pe.ca/photos/original/eec d_11-12Elem.pdf	Intermediate Program of Studies	
http://www.gov.pe.ca/eecd/index.php3?n umber=1026202⟨=E	P.E.I. Health Curriculum: Gr. 1-3, 2006	HTTP to PDF
	P.E.I. Health Curriculum: Gr. 4-6, 2009	HTTP to PDF
	P.E.I. Health Curriculum: Gr. 7-9, 2007	HTTP to
Nova Scotia		121
http://www.ednet.ns.ca/pdfdocs/curriculu m/ActiveHealthyLiving2005_sec.pdf	Foundation for Active, Healthy Living: P.H.E Curriculum K-12, 1998	PDF
http://www.ednet.ns.ca/pdfdocs/curriculu m/Health4-6 web.pdf	Health Education Curriculum Gr. 4-6, 2003	PDF
http://www.ednet.ns.ca/pdfdocs/curriculu	Learning Outcomes Framework -	PDF
m/LOFsP-6-April20-2012-WEB.pdf http://www.ednet.ns.ca/pdfdocs/curriculu m/LOFs7-9-April20-2012-WEB.pdf	Primary Learning Outcomes Framework	PDF
Newfoundland		
http://www.ed.gov.nl.ca/edu/k12/curriculun/guides/health/index.html#primary	Towards a Comprehensive School Health Program: A Primary Health Curriculum – [n.d.]	HTTP to PDF
http://www.ed.gov.nl.ca/edu/k12/curriculun/guides/health/index.html#elementary	 Towards a Comprehensive School Health Program: An Elementary Health Curriculum – [n.d.] 	HTTP to PDF
http://www.ed.gov.nl.ca/edu/k12/curriculun/guides/health/index.html#adolescencehttp://www.ed.gov.nl.ca/edu/k12/curriculun/guides/health/index.html#gl	(Health and Personal Development	